

**A MOSFET-FUSED NONVOLATILE READ-ONLY  
MEMORY CELL (MOFROOM)**

**ABSTRACT OF THE DISCLOSURE**

5 With directly biasing drain to source in a floating-gate N-MOSFET, a new MOSFET-fused nonvolatile ROM cell (MOFROOM) is provided by tunneling-induced punch through of the drain junction to the source. The MOFROOM is completely compatible with the mainstream standard CMOS process. The standard MOSFET presents an “OFF” state before the burning and an “ON” state with a stable low-resistance path after the burning.